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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,837	03/18/2004	Yoshinori Iguchi	Q91047	4257
23373	7590	11/14/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			LAZORCIK, JASON L	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/802,837

Applicant(s)

IGUCHI ET AL.

Examiner

Jason L. Lazorcik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 8-14 and 16-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

Claims 8-14 and 18-20 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim *should refer to other claims in the alternative only and/or cannot depend from any other multiple dependent claim*. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically in each of claim 1 (line 14), claim 2 (line 15), and claim 3 (line 15), the precise metes and bounds for the term "one cycle of preparing one glass glob from the glass melt flow" have not been adequately defined thus rendering said claims unclear and indefinite.

### ***Claim Rejections - 35 USC § 103***

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-7 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeuchi (US 5,738,701).

The Ikeuchi reference discloses a method for separating glass gobs from a glass melt flowing from a nozzle. In the disclosed process, a support member (10) is raised or made to approach a nozzle (3a or 3b), said support receives the glass melt. As set forth in the disclosure, the support is either intermittently or continuously lowered and when the glass retention ends, the support member is lowered at high speed to cut the glass. During the lowering, a constriction is formed between the support and the nozzle (fig 4e) which yields the breakpoint during the rapid lowering stage of the support (element 6d displayed in greater detail in fig 8).

Further with respect to claims 15-17 it is asserted that from the time the gob is severed from the melt through the reengagement of the support member to said melt

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"contact between the support member and the lower end of the glass melt is "temporarily broken". Specifically with respect to Claim 17, Ikeuchi clearly indicates that the glass glob that has dripped is rendered spherical on the support member (column 4, Lines 23-33).

Ikeuch teaches that "the thus-obtained glass gob, after cooling solidification may be press molded in a mold to achieve a desired top surface of the glass gob, or may be press molded prior to cooling solidification" (Column 5, Lines 48-51). The instant reference however is silent regarding the timing of the transfer process with respect to the timing of the gob formation process.

Yoshikuni (US 6,854,289) teaches that "the cast glass is subjected to acceleration" during transfer of a gob to a receiving or "forming" mold in a process similar to that outlined by the applicant. More importantly, the reference indicates that equipment acceleration exerts a force upon the glass, deforming the glass and that "when the amount of deformation is significant, the distortion remains in the glass after it returns its original shape". Finally, the reference indicates that "the greater the acceleration exerted on the glass...the greater the tendency of the glass to distort" (Column1, Lines 56-67).

A particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation (See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) and *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977)). In the instant case, the forces generated by

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equipment acceleration directly impact the observed deformation in a softened glass gob and said forces are directly related to the timing of various process steps.

Therefore in the applicants process, "the time during which the glass forming member is stopped for transfer of the glass gob from the support member" which directly impacts the acceleration of the process equipment is deemed a result-effective variable of gob molding process.

In accord with the teachings of Yoshikuni, it would have been obvious to one of ordinary skill in the art at the time of the invention to minimize the forces exerted upon softened gob by reducing the acceleration of the process equipment. With respect to the Ikeuch process, it would therefore have been obvious to optimize the forming mold "stop" time to any value which minimizes these horizontal acceleration forces while maintaining a sufficiently high molded article throughput to remain economically viable.

### ***Conclusion***

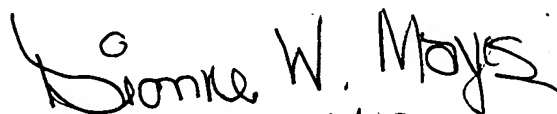
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason L. Lazorcik whose telephone number is (571) 272-2217. The examiner can normally be reached on Monday through Friday 8:30 am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JLL

  
**DIONNE WALLS MAYES**  
**PRIMARY EXAMINER**